Michael Best

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December 28, 2017

VIA U.S. MAIL

Michael D. Harris
Acting Division Director
Land and Chemicals Division
U.S. EPA, Region 5
77 W. Jackson Blvd. (C-14J)
Chicago, IL 60604-3590

RE: Madison-Kipp Corporation, 201 Waubesa Street, Madison, WI
PCB Site Remediation
EPA ID: WID006071716
Response to December 14, 2017 Correspondence

Dear Mr. Harris:

Our Firm represents Madison-Kipp Corporation (Madison-Kipp and/or the Company). This is in response to your December 14, 2017 letter regarding the November 2017 Stipulation and Order for Judgment between the State of Wisconsin and the Company resolving the State of Wisconsin's 2012 enforcement action brought against the Company (the Order). As an initial matter, you should know that since the initial discovery of environmental conditions at the Company's facility resulting from chemical handling decades past, it has spent more than $8.0 million in environmental investigation and remedial activities for soil and groundwater contamination at and surrounding the facility. This is in addition to a significant settlement of a putative class action brought against the Company by surrounding neighbors. The Company has addressed onsite and offsite soil impacts, resolved vapor intrusion concerns, defined the degree and extent of contaminants of concern in the groundwater and installed and is operating soil vapor extraction and groundwater recovery and treatment systems. The Company has acted responsibly and cooperatively with its environmental regulators to address chemical management that occurred decades ago.

Your letter indicates that EPA intends to review the Order so as to become familiar with its terms and to "determine what additional requirements may be necessary for remediation" under TSCA and the PCB regulations. Later your letter mentions concerns about potential contamination of drinking water resources indicating a desire to "assess changes to the monitoring well network." Although the Company is certainly willing to discuss these concerns with EPA representatives at a mutually convenient time, we believe it important to remind EPA of the positions the Company has advanced on these topics previously and of its jurisdictional boundaries as a backdrop to those anticipated discussions.

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TSCA Cleanup Requirements Do Not Apply to Madison-Kipp as the Company's Use of PCB-Containing Oil Predates 1978

As early as 2012, and on several occasions thereafter, Madison-Kipp has provided the Wisconsin Department of Natural Resources (WDNR) and U.S. Environmental Protection Agency (EPA) information confirming the release of polychlorinated biphenyls (PCBs) to the environment at the site predated the enactment of the Toxic Substances Control Act (TSCA).[1] Madison-Kipp's historical use of PCBs was discussed, in detail, during the August 27, 2014 meeting in Janesville, WI with representatives from WDNR, EPA and Madison-Kipp present. At all times the key facts have remained the same: 1) the Company's last confirmed purchase of PCB-containing hydraulic oil occurred in 1971 and 2) PCB-containing spent oil was historically used as a dust suppressant on the Company's parking lots until the lots were paved between August 1976 and November 1977.

Soil generated during on-site remedial efforts in 2012 was tested before off-site disposal and PCBs were detected in the composite soil sample. Madison-Kipp informed WDNR of the soil sample results in March 2012 and provided additional information and documents as requested by WDNR. During Madison-Kipp's thorough review of historical records, the Company identified that its last purchase of hydraulic oils containing PCBs was in 1971. In addition, during the Company's review of historical reports it was identified that potentially PCB-containing spent oil was historically used as a dust suppressant in the northeastern parking/loading dock area of the Company's parking lot. Dust suppression activities ceased no later than when the parking lot/loading dock areas were paved which, according to interviews with long-term employees, occurred between August 1976 and November 1977. These facts are addressed in a January 2013 expert report that was filed in the now-resolved *McHugh et al. v. Madison-Kipp Corporation et al.* matter in the U.S. District Court of the Western District of Wisconsin. That expert report relied on, in part, a sworn statement from a retired long-term Madison-Kipp employee with personal knowledge of the above referenced dust suppression activities.

Therefore, Madison-Kipp's thorough and good faith inquiry into the nature and origin of PCB contamination at the site establishes that any release of PCBs to the environment occurred prior to April 18, 1978. As such, consistent with TSCA and its implementing regulations, the site is presumed not to present an unreasonable risk of injury to health or the environment from exposure to PCBs at the site and cleanup up in accordance with 40 C.F.R. § 761.61 is not

[1] See, for example, May 9, 2012 letter to Ms. Linda Hanefeld, WDNR, with copy to Bradley Grams and Peter Ramanauskas, EPA Region V ("...based on MKC's internal investigations previously described to you, the release of PCBs to the environment predated both the enactment of TSCA and § 292.11, Stats...."); ARCADIS *Technical Justification – Polychlorinated Biphenyl (PCB)-Impacted Soils Beneath the Main Manufacturing Building,* Madison-Kipp Corporation, October 22, 2014, pp. 1, sent to WDNR, copy to Mr. Kenneth Zolnierczyk, EPA, by email dated October 22, 2014.

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required. 40 C.F.R. § 761.50(b)[2]. Madison-Kipp has met its burden of establishing that any release of PCBs into the environment pre-dated 1978.

EPA Incorrectly Asserts, For the First Time, that the Madison-Kipp Site is a Type A Site Under the One Cleanup MDA

Since the discovery of PCBs in 2012, the Company has been working with the WDNR pursuant to the One Cleanup Program Memorandum of Agreement between WDNR and EPA (One Cleanup MOA) for more than five (5) years. In its December 14, 2017 letter, EPA asserts, for the first time, that the Madison-Kipp site is a "complex site (Type A) involving environmentally diverse or multiple complex issues" under the One Cleanup MOA. To our knowledge, until now, neither EPA nor WDNR have asserted that the Madison-Kipp site is a Type A site and indeed neither agency has acted as such. The Madison-Kipp site is technically distinguishable from the example of a Type A site included in the One Cleanup MOA guidance document (Fox River sediments), RR-786 (Nov. 2014), and EPA's failure to raise this issue before now, particularly when this was a specific topic of discussion during the August 27, 2014 in-person meeting, makes this assertion, at this point in time, highly suspect.

Revealingly, the parties have not been operating as if this were a Type A site. For example, the WDNR One Cleanup MOA guidance document notes that both the TSCA cleanup requirements and the NR 700 rule series are applicable to Type A sites and that "separate DNR and EPA review and approval processes outside the MOA coverage must be conducted" for Type A sites. However, individual approvals have neither been sought, nor obtained, from EPA for Madison-Kipp's work on the site. While there has been coordination between WDNR and EPA (consistent with Type B site coordination), Madison-Kipp has never sought separate EPA approvals. EPA has also never demanded separate reviews and approval; instead WDNR has always facilitated coordination with EPA consistent with a Type B site.

Finally, consistent with all of the Company's prior statements on this point, the Madison-Kipp site is a Type B site under the One Cleanup Program MOA. Madison-Kipp informed WDNR in 2012 that it would work collaboratively with WDNR under the One Cleanup MOA as a Type B site and the Company has acted consistent with a Type B classification since 2012. The site qualifies as a Type B site under the One Cleanup Program MOA because Madison-Kipp's thorough and good faith review determined that the date of release was before April 18, 1978, as per 40 C.F.R. § 761.50(b)(3), and there is no basis to conclude the site qualifies as a Type A site.

[2] Clean up is required, however, pursuant to Wisconsin's Hazardous Substance Spill Law, § 292.11, Wis. Stats., and is addressed by the injunctive relief contained in the Order.

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Madison-Kipp's Monitoring Well Network and Drinking Water Concerns

Your letter relates, for the first time to our knowledge, generalized concerns related to potential impacts to drinking water in the area of the Site. We are aware of no evidence that would support those concerns. We are also unclear if these concerns are related to the presence of PCBs, PCE or both. To the extent you are referring to shallow groundwater resources vis-à-vis PCBs entombed beneath the facility, this resource does not serve as the drinking water aquifer for the City of Madison and no private drinking water wells are allowed in the City. Also, shallow groundwater beneath the site is subject to an aquitard-confining geological unit known as the Eau Claire Formation. Note further that groundwater in the State of Wisconsin is under the exclusive jurisdiction of the WDNR, as delegated by the State Legislature. See *Lake Beulah Mgmt. Dist. v. Department of Natural Resources*, 2011 WI 54, 355 Wis. 2d 47, 799 N.W.2d 7, ¶ 39. Further, WDNR has also already concluded that PCBs have not dissolved in groundwater at the site. See enclosed July 20, 2016 memorandum to the City of Madison from WDNR.

To the extent your letter refers to the City of Madison's drinking water supply and PCE from the site, you should also be aware that WDNR agreed with an independent third-party consultant's conclusion that PCE from the site has not impacted the closest municipal water supply well (City of Madison Unit Well 8) and concluded that there is no technical reason for Madison-Kipp to install a deep monitoring well beneath the Eau Claire Formation. *See* enclosed November 22, 2017 letter to the Madison Water Utility from WDNR.

Madison-Kipp is now subject to the judicially enforceable Order entered into between the Company and the State of Wisconsin regarding required modifications to the Company's monitoring well network. The Company is legally required to move forward with such monitoring well network modifications within 90 days of entry of judgment and the Company intends to fully comply with the Order in all respects. As such, drilling activities consistent with the Order are scheduled to begin on January 15, 2018 according to the enclosed workplan prepared and submitted to WDNR.

Lastly, EPA's request for coordination concerning the Company's activities compelled by the Order at this time is ironic. The State and the Company attempted to obtain a review and input from EPA concerning the essential terms of its resolution prior to entering it. You should know that during an October 19, 2017 call with Associate Regional Counsel John Steketee and representatives of the State of Wisconsin and Madison-Kipp, Mr. Steketee expressed a reluctance to review and/or comment on any non-final settlement agreement between the State of Wisconsin and Madison-Kipp and, instead, offered that he could review an agreement *only after* it was entered into by the parties. So it is ironic that EPA would suggest the need for coordination regarding the activities required by the Order given its prior reluctance to input on the parties' final resolution of this matter.

* * *

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In summary, we welcome dialogue with EPA concerning its December 14, 2017 letter; however, we approach that dialogue from the perspective that (i) the Madison-Kipp site is a Type B site under the One Cleanup MOA and not subject to TSCA's clean up requirements because any release of PCB-containing oil would have pre-dated the TSCA jurisdictional date of April 18, 1978; (ii) that PCBs have not dissolved into groundwater beneath the facility and in any case this groundwater is under the exclusive jurisdiction of the State of Wisconsin; and lastly, (iii) there is no technical evidence of which we are aware that would suggest the City of Madison's drinking water is at risk from PCE originating from the Madison-Kipp Site. Site response activities will continue as required by the Order.

Sincerely,

MICHAEL BEST & FRIEDRICH LLP

David A. Crass

Enclosures

cc w/enc.: The Honorable Cathy Stepp, Regional Administrator
David Ross, Wisconsin Department of Justice
Jessica Kramer, Wisconsin Department of Justice
Pat Stevens, Wisconsin Department of Natural Resources
Mark Herman, Wisconsin Department of Natural Resources
John Steketee, Office of Regional Counsel, EPA
Tony Koblinski, Madison-Kipp Corporation
Mark Sheppard, Madison-Kipp Corporation
Katherine Vater, TRC Solutions
Leah Ziemba, Michael Best & Friedrich LLP

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CORRESPONDENCE/MEMORANDUM — State of Wisconsin

DATE: July 20, 2016

TO: Katie Crawley, Deputy Mayor for Public Works and Communication, City of Madison

FROM: Linda Hanefeld, South Central Region Remediation and Redevelopment Team Supervisor

SUBJECT: Responses to Citizens' Questions Regarding Clean-up at the Madison Kipp Corporation Site

On May 18, 2016, you shared with me a list of questions the SASY Neighborhood Association asked about various aspects of the investigation and clean-up at the Madison Kipp Corporation (MKC) facility located at 201 Waubesa Street, Madison. These questions were transmitted to you via electronic mail by Katherine Domina, a legislative aide to Representative Chris Taylor. The DNR and the city of Madison Water Utility have provided the answers in this memo.

Question 1 -- PCBs in the soil, MKC Grounds, Bike Path and Rain Garden Areas

Recent excavation of the bike path and rain garden area is encouraging but has raised concerns that PCB levels above allowed standards may still be present near the Goodman Center's compost and garden areas and downstream from the rain garden. Very high levels of PCBs remain below the MKC parking lot and building. Please explain the science and methodology you have used to conclude that the off site cleanup and remaining onsite contamination is acceptable.

DNR Response

- *Contaminated soil cleanup standards and their applicability are described in Wis. Admin. Code § NR 720. The Department of Natural Resources (DNR) relies on soil residual contaminant levels (RCLs) following the U.S. Environmental Protection Agency (EPA) procedures to be protective of human health.*

- *RCLs are determined by following EPA procedures that use exposure assumptions such as the amount of time a person may spend on a property each day, the weight of an individual, toxicity of the chemical of concern, how a person might become exposed to the chemical(s), etc. DNR publication RR-890 describes how to use EPA's RCL web calculator.*

- *DNR compares site data acquired through soil sampling and analysis with the soil RCLs to determine whether a cleanup is protective of human health given the current use of the property.*

- *DNR may also allow people responsible for cleanups to use methods like clean soil covers or impervious pavement (e.g., a parking lot, an asphalt path) to keep people from coming into direct contact with the contaminants of concern. These caps and covers also help minimize the amount of rain and melting snow flowing through contaminated soil and moving contaminants closer to groundwater.*

- *The Madison Kipp Corporation (MKC) removed 3,820 tons of PCB-contaminated soil (on- and off-site combined) between 2012 and 2016. DNR, the city of Madison (City) and MKC analyzed soil-sampling data to determine what soil needed to be excavated and properly disposed.*

- *All accessible soil that contained polychlorinated biphenyls[1] (PCBs) in excess of .74 milligrams per kilogram (mg/kg) was removed from the grassed-in section of the bike path. The .74 mg/kg concentration is the RCL selected for the bike path, consistent with the application of RCLs described in DNR publication RR-890. With the exception of a single sampling location, all PCB-contaminated soil beneath the MKC parking lot in excess of 50 mg/kg was also removed.*

- *The RCL (soil cleanup goal) of less than 50 mg/kg for soil beneath the MKC parking lot is consistent with DNR rules, EPA requirements identified in the Code of Federal Regulations, 40 C.F.R. § 761.61, and the DNR/EPA agreement on the cleanup of PCB-contaminated soil in Wisconsin. See "PCB Remediation in Wisconsin under the One Cleanup Program Memorandum of Agreement" guidance, November 2014, DNR publication RR-786.*

- *EPA, DNR and MKC are currently considering a proposal to allow PCB-contaminated soil to remain in place under the MKC building as an interim measure until the soil becomes more accessible and can be more easily removed as a final remedial action.*

- *Sampling data indicated the soil contamination beneath the building should not impact groundwater. However, continued groundwater sampling and analysis is required by EPA and DNR to ensure the PCB-contamination is not migrating into groundwater. If sampling shows the contamination is moving then immediate removal of the contaminated soil underneath the building will be necessary.*

- *There does not appear to be an overland flow path that would transport contaminants from the MKC parking lot to the Goodman Community Center compost pile or rain garden. Soil samples collected northeast of the rain garden did not contain PCB-levels that exceeded the RCL (and clean-up goal) of .74mg/kg.*

- *All soil in the project area that exceeded the RCL at the time of lab analysis, and remains in place, is capped/covered by clean soil or a solid layer of asphalt. A cap/cover maintenance plan is in place and DNR requires MKC to comply with the conditions of this maintenance plan to ensure it remains protective.*

- *A detailed description of the soil condition in the bike path and rain garden area is included in the case closure request submitted by MKC and received by DNR on April 28, 2016. This request has been reviewed by DNR and the City. A copy of the case file, reports and the closure determination for the rain garden and bike path area are available at http://dnr.wi.gov/botw/GetActivityDetail.do?adn=0213562649&siteId=564900&crumb=1&search=b*

Question 2 -- PCE in Well 8

The City water utility may decide to draw from Well 8 year-round by constructing a facility to house Iron and Manganese filters under the assurance that the PCE contaminated water will not be drawn toward the well. If after constructing this facility the City finds water contaminated by the PCE plume is drawn to it by the 24/7 withdrawals, in spite of assurances to the contrary, what remedial measures does the City have in place? Has the City conducted cost-benefit analysis on this scenario and if so, what are its conclusions? If the City is confident that the pollution will not reach Well 8, please provide

supporting geologic and scientific data regarding this conclusion, given that fractures do exist in the bedrock of this area and it is not as impermeable as once thought.

City of Madison Water Utility Response

- *Madison Water Utility relies on Well 8 as a seasonal well to meet supply and fire protection needs on the East Side during high-demand summer months. While MWU may eventually need to use the well year-round, it is unclear whether the increased pumping will affect a nearby plume of groundwater containing PCE. An iron and manganese filter for the well is currently budgeted for completion in 2026, but more analysis must be done before that filtration system can be constructed.*

- *In 2014, Madison Water Utility hired an independent environmental consultant to review the conclusions of modeling work performed by Madison Kipp's consultant, Arcadis (Evaluation of Plume Stability and Fate and Transport Modeling for PCE in Bedrock Groundwater). Our consultant's review identified some shortcomings of the study and opportunities for further investigation. A second consultant is currently under contract with the City to expand on the work of the initial review and analysis. The objectives of this work include:*

    - *Evaluate the stability of the PCE plume utilizing groundwater data collected since the first consultant completed her report. Determine if the plume is advancing, retreating, or has stabilized.*

    - *Identify gaps (three-dimensional) in the current monitoring. Recommend additional groundwater monitoring locations and screen intervals.*

    - *Refine the existing subsurface conceptual model for the area. Re-evaluate the hydrogeological units and calibration points used by Arcadis in their fracture flow model. Re-run fracture flow model if necessary.*

    - *Work with Wisconsin Geological and Natural History Survey (WGNHS) staff to identify potential effects of various pumping scenarios at Unit Well #8 on the local groundwater flow system using the new regional aquifer groundwater model.*

    - *Identify possible locations and vertical coverage for a groundwater "Sentinel Well" system. This system would identify migrating contaminants before they reach Well #8.*

    - *Documents related to these investigations can be found on the Madison Water Utility's website: https://www.cityofmadison.com/water/water-quality/whats-next-for-well-8*

- *As part of the city's Capital Budget process, Madison Water Utility develops a multi-year capital improvement plan, which is re-evaluated annually to account for changing water use patterns and fiscal constraints. The East Side Water Supply plan, completed in 2012, confirmed that the city will eventually need to use Well 8 year-round in order to meet demand on the East Side. Reconstruction of the well would be more economical than locating, drilling and developing a completely new well site in that part of the city.*

- *With the reconstruction of Well 7 on Sherman Avenue now complete, combined with other financial constraints, the utility has been able to delay the Well 8 project. Madison Water Utility's 2017 Capital Improvement Plan, approved by the Water Utility Board and submitted to the Mayor for inclusion in his executive budget, identifies 2026 as the completion year for this project. The proposed plan also includes a groundwater study in 2017 and installation of sentinel wells in 2018 to further examine groundwater movement in the area. Reconstruction of Well 8 would initially include iron-manganese filtration but could also be expanded to include PCE removal.*

- *Water quality will be monitored in the sentinel wells once they are constructed. If PCE is detected moving toward the well and is rising to unacceptable levels, a future treatment system to remove PCE or other volatile organic compounds would be added. Along the way, there will be multiple decision points and opportunities for community feedback to be incorporated into the planning process.*

- *In the meantime, Well 8 will continue to operate on a seasonal basis. The plan for summer 2016, and in future years, is to operate the well for about four hours daily between mid-July and mid-September. During this time, the well will deliver about 400,000 gallons of water per day and 20 million gallons per season. More water may be pumped during emergency conditions – large fire or equipment failure at another well – or extreme drought.*

Question 3 -- PCE Near Surface Water and Vapor Intrusion

Many homes near MKC were tested for the presence of PCEs and fitted with sub-slab vapor removal systems which pull out the vapors and release them near the homes' rooflines, as in radon control systems. Others have never been tested and do not have vapor removal systems installed. Those residents are concerned their exposure to PCE vapor is being overlooked. In addition, the Goodman Center and Madison Brassworks have never been tested for the presence of PCEs. Please provide data supporting your conclusion that such limited data collection is conclusive and that no more testing or vapor system installations are justified.

DNR response

- *DNR tested 47 MKC-area houses in 2012 to determine if tetrachloroethylene" (PCE) soil contamination was releasing gases/vapors that were migrating into houses and buildings. Based upon 2012 guidance criteria, none of the houses tested required the installation of vapor mitigation systems.*

- *A 2012 DNR report titled, "Review of Vapor Sampling Results for the Neighborhood Surrounding the Madison Kipp Corporation," indicates that all 47 homes tested were below the 2012 PCE indoor air and sub-slab vapor health-based screening levels. Information about vapor sampling is available at http://dnr.wi.gov/botw/GetActivityDetail.do?adn=0213558625&siteId=564900&crumb=1&search=b as well as on the DNR's MKC web page: http://dnr.wi.gov/topic/Brownfields/kipp.html.*

- *The 2012 report concluded that "[t]he extent of PCE vapor intrusion health risk to residents in homes near the MKC property has been defined. The current data indicate that the health risk from vapor intrusion in the neighborhood due to PCE contamination of soil and shallow groundwater from MKC property has been quantified and addressed through installation of sub-slab*

depressurization systems" (i.e., mitigation systems) at a few homes immediately adjacent to the MKC property.

- *Regarding the Goodman Center - Based on the data collected for the 2012 DNR vapor study and report, DNR concluded the extent of any potential vapor plume associated with contamination from the MKC property had been determined; it did not extend beyond a few properties immediately adjacent to the MKC property and no further vapor sampling was necessary. DNR determined that PCE soil gas vapors from the MKC property would not reach the Goodman Center property.*

- *Investigations performed at the Goodman Center indicate there is not a source of chlorinated contamination on the Goodman property. It is the DNR's professional opinion, based upon the data available, that there is insufficient chlorinated contamination present to lead to a vapor intrusion concern at the Goodman Center. Reports documenting the types of contaminants found at the Goodman Center can be viewed at: http://dnr.wi.gov/botw/GetActivityDetail.do?siteId=630300&adn=0213552584.*

- *Regarding the Madison Brass Works property, the city of Madison conducted a vapor assessment here in 2014 using EPA grant funds and determined that vapor intrusion into the building was not an issue or concern. The Phase I and II environmental assessment information can be viewed at http://dnr.wi.gov/botw/GetActivityDetail.do?siteId=3803800&adn=0313001683*

Question 4 -- Groundwater Extraction/Treatment System/Stormwater Discharging PCEs and Other Chemicals

MKC's groundwater extraction system (GETS) is currently pumping about 64,000 gallons of contaminated groundwater from beneath its site each day and discharging it through City storm sewers into Starkweather Creek. Although the GETS discharge is treated to remove some of the contamination, this water may still contain PCE, TCE, chloride, peroxide, permanganate and other chemicals at levels orders of magnitude higher than groundwater standards.

For some time MKC injected potassium permanganate into this groundwater to try to break down the PCEs in place. This permanganate was observed as a pink color in the discharge when MKC had to run the effluent above ground last fall while the storm sewer was being replaced, so MKC added a treatment step using hydrogen peroxide to break down the permanganate, which is highly toxic to aquatic life, before release. The only "test" to assure this permanganate is completely removed is a monthly visual inspection for the "pinkness" of the discharge. In any case, high levels of manganese may still be present in the discharges.

The DNR and City permits for this GETS system include requirements for MKC to sample, test and monitor the discharged water, but not for all possible chemical pollutants. PCEs and their breakdown products are tested monthly, but many possible chemicals, including PCBs, permanganate, manganese and chlorides are not monitored in the discharge at all. Chlorides are becoming one of the most concerning chemicals in our lakes and groundwater, and some of the contaminants are toxic to aquatic life. What goes into surface water can end up eventually in groundwater, and manganese is already a problem in Well 8, not far from where Starkweather Creek discharges into Lake Monona. Furthermore, the frequency of testing (monthly grab samples) cannot assure we really know what is being pumped into the creek and lake.

Why isn't the DNR or City requiring that all harmful chemicals in the GETS effluent be properly tested to assure the health of Starkweather Creek, Lake Monona and groundwater?

MKC's contribution to the phosphorus, dissolved solids, and other contaminant problems in the lakes should be investigated. Kipp has never monitored how much phosphorus, dissolved solids, chlorides, PCBs, metals or other toxic contaminants, are coming from their stormwater runoff and going via storm drains into Starkweather Creek and Lake Monona, which are on the "impaired waters" lists for TSS, phosphorus, and metals. As of August 2015, chloride was also added to the impaired listing for Starkweather Creek. Kipp has self-reported since 1994 (even while contaminants were being documented all over the site) that there are NO contaminants coming out of its storm pipes at all. DNR and the city have trusted MKC self-reports and have not required Kipp to test storm water discharges for these contaminants.

What will the long term effects of these ongoing discharges of contamination into Starkweather Creek, Lake Monona, and groundwater--particularly Well 8 and Well 11--be? These issues should be investigated, addressed and discussed with the east side and broader community.

DNR Response

- *MKC requested regulatory coverage under the "Wisconsin Pollution Discharge Elimination System (WPDES) Contaminated Groundwater from Remedial Action Operations" general permit; the DNR reviewed the application and determined the proposed discharge qualified for coverage under the general permit. The application materials did not indicate any realistic potential to exceed surface water quality standards listed in ch. NR 105, Wis. Adm. Code, for pollutants not directly limited by this general permit.*

- *PCB groundwater contamination was very minor and only present in the initial sampling events from well nest MW-22S&D; subsequent sample results all showed no-detections of PCBs. It is believed PCBs have not migrated to groundwater but rather were associated with the sediment present in the groundwater sample collected from those monitoring wells. MW-22S&D are also located outside the capture zone of the groundwater extraction well.*

- *The presence of elevated manganese in the groundwater is not considered to be from the MKC. Manganese concentrations are commonly found in groundwater aquifers of Wisconsin, and its presence occurs naturally from soils and certain types of rock. The groundwater in this aquifer is in contact with manganese-containing solid materials, dissolving them, and releasing the naturally-occurring manganese into the groundwater. Chapter NR 105, Wis. Adm. Code, Tables 1 through 9, do not identify a surface water quality discharge limit criteria for manganese. Based on the EPA toxicity database, the DNR derived a secondary criterion for manganese. The average groundwater concentrations from the monitoring wells tested in capture zone did not identify a surface water discharge concern.*

- *Sodium permanganate is a commonly used soil and groundwater remediation injection agent for chlorinated compounds and was used in the previous remediation efforts for MKC. After startup of the groundwater extraction system, the system extracted some of the residual sodium permanganate (approximately 0.75 - 3.8 milligrams per liter or mg/l concentration) remaining from the initial remediation efforts. Chapter NR 105, Wis. Adm. Code, Tables 1 through 9, do not identify a surface water quality discharge limit for permanganate. However, the DNR has required that MKC*

neutralize the permanganate as part of the treatment process. The neutralization process is being monitored and adjusted by visual observation and the results are submitted with the Discharge Monitoring Reports to determine compliance.

- *The DNR added the supplemental monitoring requirement for chloride, which is likely present in groundwater due to its use as a deicing agent for roads during winter. The sample results collected to date are below levels that would require the need for treatment and the issuance of a specific WPDES permit.*

Question 5 -- Air Pollution

When DNR issued air pollution permits to Kipp, the public hearings at East High School, Olbrich Gardens and DNR's offices were well-attended with residents anxious to express their concerns. Neighborhood residents repeatedly asked for better regulation of Kipp's air pollution. Kipp has gradually made improvements including better building ventilation in the mid-1990's, increasing the height of the furnace stacks to 100 feet and recently announcing that chlorine will no longer be used for purifying melted aluminum. While air pollution control equipment is available to eliminate the furnace and die casting emissions, Kipp continues to release uncontrolled air pollution into the neighborhood.

Very few tests have been conducted to measure Kipp's air pollution emissions. The last compliance test on the stacks exhausting the die casting fumes were conducted in 1994. At public hearings and written comments, residents have repeatedly asked the DNR to require more tests to determine amount and composition of Kipp's air pollution emissions. Evidence suggests that Kipp has discharged cancer-causing chemicals from its vents and stacks. We already know from tests that the injection of chlorine into the molten aluminum created stack emissions of the carcinogenic dioxins and furans. There has never been an analysis of the chemical composition of the die casting fumes. The Die Casting Association and USEPA acknowledge that die casting fumes contain toxic chemicals. The neighborhood's expert for the recent solvent contamination lawsuit, Dr. Everett, noted that the soil beneath Kipp wall vents was contaminated with PAH compounds and Kipp's die casting operations released PAH compounds through vents and stacks. Sampling inside Kipp last year found PCB's in the workplace air.

Neighborhood residents and Representative Taylor have repeatedly asked for tests on the Kipp die casting operations to determine the amount and composition of the fumes released into the neighborhood. When will the DNR require Kipp to test the die casting fumes?

How will new DNR air pollution regulations and policies affect the control of Kipp emissions? Examples include the policy on evaluating if fine particles comply with air quality standards, higher emission thresholds for generic registration permits, and non-renewable operation permits.

Will Kipp voluntarily agree to comply with current air quality standards, conduct stacks tests on its die casting operations, and install air quality monitors?

Could the DNR or health department identify all of the chemicals which Kipp releases as air pollution into the neighborhood?

DNR Response

- *Based on the compliance inspection performed by the DNR in 2013, the facility was found to be operating in compliance with all Wisconsin air pollution control regulations. The full compliance evaluation report is available for review at the DNR regional office at 3911 Fish Hatchery Road in Fitchburg, or at the agency headquarters at 101 S. Webster Street in downtown Madison. Current air quality monitoring data shows that citizens in Madison are breathing air that is in compliance with all national ambient air quality standards.*

- *To the extent required by the Wisconsin Administrative Code, the company has reported all their emissions to DNR. The emissions from the company, and their current operation permit, 113125320-F10, can be found by using the permit search tool.*

- *Previous permits set emission limits for the die casting operations based on stack test data. The removal of chlorine for purifying melted aluminum eliminates the emissions from that process. Also, air quality trends for fine particulate matter in Dane County continue to improve, as shown on our website.*

- *Madison Kipp may choose to apply for coverage of a registration permit or may retain their current synthetic minor status. The air program is in a position to need to focus on renewals for the largest emitters of air pollution while the renewal permit application for Madison Kipp is for a lower emitting synthetic minor source. Any future permit review conducted by the program will follow the current policies. The various policies and permit options in the Air Management Program, including Registration Permits, are explained here, where a Type B Registration Permit Fact Sheet, Application Guidebook, Application Form, and the air pollution control registration permit itself, dated February 23, 2016 can be found.*

- *MKC was asked to monitor indoor air for exposures to PCBs. It is the DNR's understanding that EPA's concerns regarding worker exposure issues have been satisfied.*

Question 6 -- Public Information

In 2011, the DNR set up a website and listserve to help neighbors and others keep abreast of the MKC contamination issues and clean-up efforts. DNR and Madison/Dane Co Public Health held two public meetings (in October 2011 and February 2012) and two "availability sessions" (March and May 2015) and allowed people to ask questions and get updates. No public meetings have been held since then. DNR placed updates on their website and sent them out to the listserve from October 2011 to October 2014, and placed the last public information document (regarding the GETS system permit) on this website in January 2015. Although DNR has put some technical documents on their BRRTS website since them, not many people are aware of this resource.

MKC has responded to questions a few times on the SASY Neighborhood Association Facebook page and listserve and met once with the SASYNA Kipp Committee, as well as attending the public availability sessions.

How can the DNR, MKC and other agencies assure that the public has complete, updated information on MKC's contamination issues and clean-up efforts?

DNR Response

- *Area residents and other citizens can directly access all DNR's environmental information related to soil investigation and cleanup activities at MKC here: http://dnr.wi.gov/botw/GetActivityDetail.do?adn=0213576860&siteId=564900&crumb=1&search=b.*

- *The 3 DNR case file tracking numbers for the MKC activities discussed in this document are: a) 02-13-576860, which pertains to soil remediation work both on- and off-site; b) 02-13-558625, which pertains to the facility itself, including PCB and groundwater work); and c) 02-13-562649, which pertains to the investigation of the rain garden and bike path.*

- *In addition, information and documents related to other MKC cleanup project activities can be viewed by searching for "Madison Kipp" in the "Activity Name" box on this web page: http://dnr.wi.gov/botw.*

- *The above web-based DNR database, known as BRRTS on the Web, contains information about all known discharges of hazardous substances to soil and groundwater in Wisconsin. It also includes data and, in some instances, documents for environmental assessment, investigation and remediation activities.*

- *Anyone having trouble accessing information via the web-based database, and anyone without internet access, is welcome to contact DNR and make an open records request for the information they wish to review. Call DNR's Open Records Coordinator at 608-266-2177.*

- *The DNR has made a commitment to make new documents received from Madison Kipp or its consultant, Arcadis, available on DNR's Bureau for Remediation and Redevelopment Tracking System database (BRRTS on the Web or BOTW) that is accessible to the public at: http://dnr.wi.gov/botw/SetUpBasicSearchForm.do*

- *DNR's Madison Kipp Webpage, with historic information and documents about the environmental cleanup, is located at http://dnr.wi.gov/topic/brownfields/kipp.html.*

- *All records are available for viewing at the DNR office in Fitchburg by appointment. Please contact Wendy Weihemuller at 608-275-3212 or at wendy.weihemuller@wisconsin.gov to set up an appointment. Or, you can make an open records request by completing the form found at: http://dnr.wi.gov/contact/csopenrecords.html*

[I] PCBs are a group of 209 different compounds. PCBs are manufactured substances and have no smell. They are yellow, oily liquids that don't burn easily. There are no natural sources of PCBs. Companies in the United States first made PCBs in 1929. They've been used as coolants in electrical equipment, in metal-cutting oils, in microscope lens oils, and in inks, dyes, and carbonless copy paper. Source: https://www.dhs.wisconsin.gov/chemical/pcb.htm.

[II] Tetrachloroethylene (PCE) is a nonflammable, liquid solvent widely used in dry cleaning, wood processing, fabric manufacturing, and metal degreasing. In homes, it may be found in suede protectors, paint removers, furniture stripper, water repellents, silicone lubricants, spot removers, glues, and wood cleaners. PCE evaporates slowly at room temperature and has a sweet, ether-like odor. When PCE is improperly disposed of or spilled, most of it will evaporate into the air. The rest will seep into the soil. It may mix with groundwater and contaminate water supplies. Source:. https://www.dhs.wisconsin.gov/chemical/tetchlor.htm

State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
101 S. Webster Street
Box 7921
Madison WI 53707-7921

Scott Walker, Governor
Daniel L. Meyer, Secretary
Telephone 608-266-2621
Toll Free 1-888-936-7463
TTY Access via relay - 711

November 22, 2017

Mr. Joe DeMorett
Madison Water Utility
119 East Olin Drive
Madison WI 53713-1431

Subject: Department Comments on City of Madison Unit Well 8: October 2017 PCE Plume Evaluation Report

Dear Mr. DeMorett:

The purpose of this letter is to respond to the City of Madison's Water Utility October 2017 report entitled "PCE Plume Evaluation Report: Unit Well 8, 615 Welch Avenue, Madison, Wisconsin." In October 2017, under contract to the Madison Water Utility, SCS Engineers produced a report evaluating the contamination risk to City Well 8 from the Madison Kipp (MKC) facility. The report reviewed existing data and performed groundwater modelling to determine travel times between the MKC site and City of Madison Well 8. The report included a recommendation that the City "consider" installing a deep monitoring well to look for contamination moving from MKC to the city well in the deeper aquifer, beneath the Eau Claire Formation.

Since 1994, the Department has been overseeing the investigation and cleanup of the contamination at the MKC facility. In recent years, there has been significant effort directed towards describing the deeper bedrock groundwater contamination beneath and downgradient of MKC. The result of this work indicates that in the decades since solvents were first discharged to the land surface at the MKC facility, limited contamination has reached the upper portion of the Eau Claire Formation. The Eau Claire Formation, as an aquitard, affects contaminant migration near the MKC facility by restricting contaminant movement into the deeper sandstone units that provide water to Well 8. The current data does not show that significant contamination originating from the MKC site has reached the top of the Eau Claire Formation. The SCS report states:

> "The evidence that the documented MKC contamination is responsible for the detection of cis-1,2-dichloroethylene (DCE) in UW8 is unclear at best. Based on the monitoring data from UW8, it does not appear that breakthrough of the PCE plume at this well has occurred."

Given the data collected to date and the site's characteristics, the Department has not required MKC to investigate conditions beneath the Eau Claire Formation. Further, the Department is concerned about breaching the Eau Claire Formation by requiring monitoring wells into that formation, and potentially creating a conduit for contamination to migrate to the lower aquifer. The Department has reviewed the SCS report and concludes that there is no new information that would compel the Department to require MKC, at this time, to install a sentinel well near Madison Well #8, pursuant to the Department's legal authority under Wis. Stats. 292 and Wis. Admin. Code § NR 700 rule series. The Department appreciates the City's concerns over the safety of the drinking water provided by Madison Well #8, and understands if the City intends to move ahead voluntarily with the installation of such a well.

The Department is willing to meet with the Water Utility and the City to discuss the monitoring network and sampling results for the MKC site, and the conceptual site model for contaminant movement. Please contact Mike Schmoller at 608-275-3303 to arrange a time for the meeting.

Sincerely,

Steven L Martin, P.G.
South Central Region Team Supervisor
Remediation and Redevelopment Program

Cc:

Mike Schmoller, DNR
Steve Ales, DNR
Steve Elmore, DNR
Darsi Foss, DNR
Jessica Kramer, DOJ
Katie Crawley, City of Madison

708 Heartland Trail
Suite 3000
Madison, WI 53717

608.826.3600
608.826.3941

www.TRCsolutions.com

December 27, 2017

Mr. Mike Schmoller
Wisconsin Department of Natural Resources
3911 Fish Hatchery Road
Fitchburg, WI 53711

Subject: Workplan for Well Abandonment and Installation of Replacement Wells
Madison-Kipp Corporation
TRC Project No. 269392.0000
BRRTS #02-13-578014

Dear Mr. Schmoller:

TRC Environmental Corporation (TRC) presents the following workplan for abandonment of four existing monitoring wells and installation of two replacement monitoring wells at Madison-Kipp Corporation (MKC), 201 Waubesa Street, Madison, WI. This work is planned in accordance with the Stipulation and Order for Judgment agreed upon by MKC and the State of Wisconsin in November 2017.

Monitoring Well Abandonment

Existing monitoring wells MW-22S, MW-22D, MW-23S, and MW-23D will be abandoned in accordance with NR 141, Wisconsin Administrative Code. These four wells are 50 feet deep or less and have less than 30 feet of standing water column, therefore, they will be abandoned by filling the casings with 3/8-inch bentonite chips.

Monitoring Well Installation

Two new monitoring wells (MW-29S and MW-29D) will be installed outside the building at the south end of the MKC facility. The approximate location of the new well nest conforms with the Stipulation and Order for Judgment and is shown on Figure 1. MW-29S will be installed with 10 feet of PVC screen from approximately 25 feet to 35 feet below ground surface (bgs). MW-29D will be installed with 5 feet of PVC screen from approximately 45 feet to 50 feet bgs. The boring for MW-29S will be drilled using hollow-stem augers. The boring for MW-29D will be drilled using hollow-stem augers until bedrock is encountered, and then using air rotary drilling through the bedrock until a depth of 50 feet is reached. The wells will be constructed and developed in accordance with NR 141.

All soil cuttings generated during drilling will be containerized in 55-gallon steel drums for disposal. Soil samples will be collected from drummed soil for waste characterization purposes. Groundwater produced during drilling and well development activities will also be containerized for disposal.

Report

Documentation of well abandonment and replacement well installation activities will be submitted to the WDNR in a report following the completion of field activities. Documentation will include well abandonment forms for the four abandoned wells and borings logs, well construction forms, and well development forms for the two new wells.

Schedule

The well abandonment and well installation fieldwork is currently scheduled to take place January 15 and 16, 2018. Disposal of investigation-derived wastes will be coordinated as soon as is practical following well installation. We anticipate submitting the documentation report within 60 days of field activities.

If you have any questions about this workplan please contact Steve at (608) 826-3608 or Katherine at (608) 826-3663 to discuss.

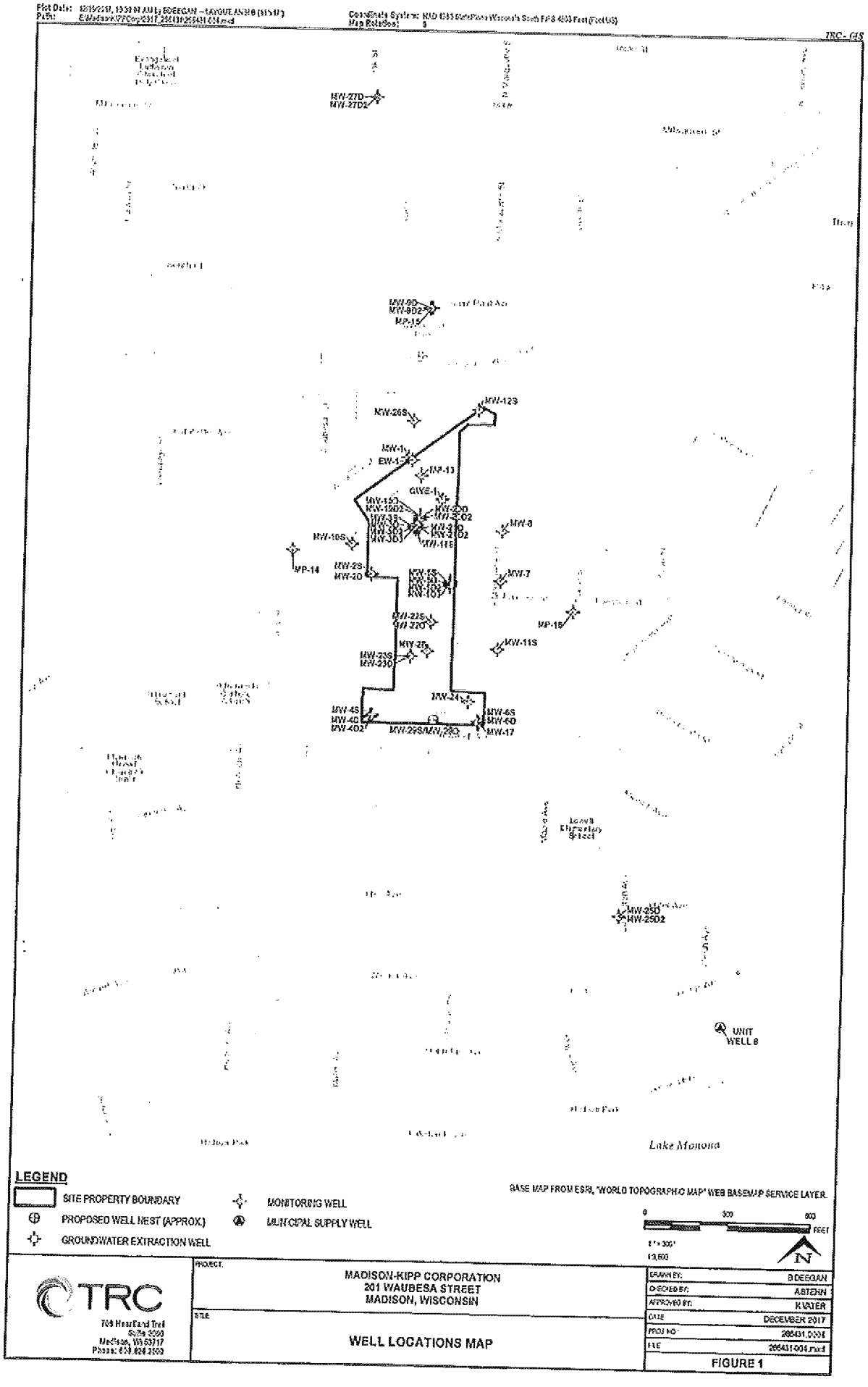
Sincerely,

TRC Environmental Corporation

Stephen Sellwood /KAV
Stephen Sellwood, PG
Senior Hydrogeologist

Katherine A. Vater, PE
Project Manger

Attachment: Figure 1 – Well Locations Map



LEGEND

- SITE PROPERTY BOUNDARY
- PROPOSED WELL NEST (APPROX.)
- GROUNDWATER EXTRACTION WELL
- MONITORING WELL
- MUNICIPAL SUPPLY WELL

BASE MAP FROM ESRI, "WORLD TOPOGRAPHIC MAP" WEB BASEMAP SERVICE LAYER.

0 300 600 FEET

1" = 300'
1:3,600

N

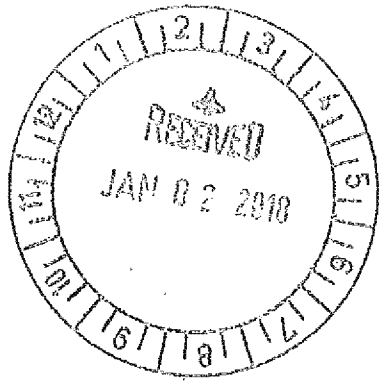
TRC
708 Heartland Trail
Suite 3000
Madison, WI 53717
Phone: 608.826.3600

PROJECT:
MADISON-KIPP CORPORATION
201 WAUBESA STREET
MADISON, WISCONSIN

TITLE:
WELL LOCATIONS MAP

DRAWN BY:	B DEEGAN
CHECKED BY:	A STEHN
APPROVED BY:	K VATER
DATE	DECEMBER 2017
PROJ NO.	265431.0004
FILE	265431004.mxd

FIGURE 1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